

Application for Community Preservation Funding For Projects Requesting \$25,000 or more

Structural stabilization of the N. Leverett Sawmill A Project Name:

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1	APPLICANT INFORMATION Project Sponsor or Organization: Friends of the North Leverett Sawmill (FONLS) Address: PO Box 57 City: Leverett State: MA Zip: 01054 Daytime Phone: 413 687 2865 (Sam Black) Fax: NA Email: sblack@umass.edu
	Property Owner (if different from applicant) Contact Name: Friends of the North Leverett Sawmill Address: 63 N. Leverett Rd City: Leverett State: MA Zip: 01054 Email:
2	Project Information
	CPA Category: Historic Preservation
	Project Location/Address: 63 N. Leverett Road, Junction of Cave Hill and N. Leverett Rd Leverett Assessors Map: 1, Lot: 11
	Brief Project Description: Structural stabilization of the N. Leverett sawmill through reinforcement/replacement of masonry, piers, posts, framing, sub-floor joists, metal support members and beams on the stone foundations, lower and upper floors
	JNT OF CPA FUNDING REQUESTED: \$391,372 For CPC Use
	Date Received Funding Recommendation Date Application Deemed Complete Public Hearing

B. PROPOSAL NARRATIVE

- 1 Goals and Description
- a Project Goal

FONLS, a public 501c3, is requesting \$391,372 CPA funds to remediate structural defects (described in Appendix 1) in the N. Leverett Sawmill by reinforcing, replacing and adding support masonry, beams, posts and piers on which the historic (~1774) sawmill is supported, and framing, joists and other structures which support the lower and upper mill floors as specified in the "Progress Set" engineering drawings (Appendix 2) provided by Structures North (https://structuresnorth.com). The funds requested encompass construction estimates prepared by AM Fogarty & Associates (https://amforarty.com) a well respected New England Construction estimation firm, and estimates for completion of biddings documents, structural specifications compliant with historic preservation standards, overseeing the bidding process, and managing the construction process by Clark Green + Bek (architects; https://www.clarkandgreen.com), Foresight Engineering (https://structures-north.com), which are approved by the National Park Service and the Department of Interior for historic rehabilitation of the Mill.

The North Leverett Sawmill is a symbol of Leverett's origin that appears on both the Town Seal and Town Flag. It is an 81' x 29' post and beam frame building with 3 of its 4 bents built before the Revolutionary War in a utilitarian, vernacular style that is compelling in setting, materials and feeling. Disuse and depredations of nature threaten the sawmill's long-term survival. Indeed, part of the mill's roof collapsed in 2003 when a chestnut beam broke under heavy snow load. Reconstruction was supported in 2006 by Community Preservation Act (CPA) funds administered by the Leverett Community Preservation Commission (CPC). Rehabilitation and adaptive reuse with routine maintenance will make the mill a sustainable part of Leverett's future and provide visitors a physical sense of history that stretches from before the birth of USA to the present day. This is the goal of a 501c3 non-profit, Friends of the North Leverett Sawmill (FONLS), to which ownership of the mill and 2.6 acres of adjacent riverside land was transferred in 2022, the latter encompassing a built landscape that provided waterpower to the 1800s Graves' ironworks whose remains sit on contiguous town land. FONLS' overall goal is to rehabilitate the sawmill and early industrial sites into a Museum, Cultural Center and Park Complex while retaining the mill building envelope which has a historic restriction and is highly valued by the Leverett community. The rehabilitated mill through cultural and museum functions will support community events and will contrast the life and ingenuity of our forebears as they capitalized on fast-flowing water to power the growth of Leverett, with the culture and emerging technologies of Leverett and the wider community today.

b Description of Project Activities and Outcomes

Rehabilitation of the mill and its 0.5 acres of surrounding land is a complex, multiphase process as outlined in Figure 1. It involves: Schematic Design, Design Development, Construction Documents, Bidding, Negotiation, Construction and Construction Administration. We have completed the Schematic Design phase which includes architectural (Fig 2), landscaping (Fig 3), and composting septic system (Fig 4A&B) designs, and are now in Design Development, to be followed by the development of Construction Documents. The latter must be approved by the National Park Service (NPS) and State Historic Preservation Office (SHPO) prior to putting the construction work out to bid. Leverett CPA funds for work to stabilize the foundation and floor (lower and upper) supports of the building is requested in this proposal. The need for this structural work was established by analysis of the existing structure and conditions by Structures

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North (Oct 2024, Appendix I) and followed by Progress Set engineering plans outlining structural reinforcements needed to stabilize the building and floors on both levels (Sept 2025, Appendix 2).

With CPA funds, if supported, and NOI approval and building permits, work will begin on structural stabilization of the mill. A large portion of the proposed work will address repair of the stone foundation. It is anticipated that this construction work will begin in summer 2026. Completion of the work will ensure structural stability of the building and have the immediate outcome of allowing initiation of non-structural repairs funded by the award of \$683,500 to FONLS as a NPS Semi-Ouincentennial Program Grant to celebrate the nations 250th anniversary. These include: i) selective building envelope repair including the repair of wood siding, ii) repair/replacement of wood-framed windows in-kind, iii) Installation of operable folding glass doors in place of currently boarded openings to the exterior, iv) repair and sanding of uneven floors, v) repair of the mill sluice gate, cage, and winch to allow flood control. vi) repair/reinforcement of posts and beams that support the upper 1/2 story of the mill gallery, vii) Installation of ADA compliant entrances and access to the mill chamber, viii) cleaning and enclosure of the long log carriage and saw for display and safety. ix) Installation of a wheelchair accessible path and entrance ramp into the mill main chamber with drainage and landscaping improvements, x) Installation of new electricity feed (underground)) and layout to display exhibits, illuminate event elements, and provide outside lighting (A/E Electrical Services).

c Eligibility for CPA funding

Rehabilitation of the N. Leverett Sawmill - The North Leverett Sawmill (also called the Slarrow Sawmill after its 1774 owner) is listed as a contributing resource to the historic district of North Leverett in the National Register of Historic places (National Register Information System Reference Number 14000326) and listed in the Massachusetts Cultural Resources Information System, reference LEV.63 (https://mhc-macris.net/details?mhcid=LEV.63). The sawmill was one of the 19 national historic sites and structures, from 9 states, awarded a Semiquincentennial Program Grant by the National Park Service to celebrate the nation's 250th anniversary. One area supported under guidelines for Historic Preservation is rehabilitation. This includes adaptive reuse which "restores and transforms buildings that have outlived their original purpose" (https://www.communitypreservation.org/allowable-uses). The NPS and CPA apply the same standards of Historic Preservation, and FONLS, which is in receipt of a NPS Grant for non-structural rehabilitation of the sawmill, is required to adhere to these standards.

- d Description of Sawmill Rehabilitation Project applicant and Partners:
- i. FONLS Friends of the North Leverett Sawmill are the authors of this proposal. Board of Directors include a licensed mechanical engineer, members of both LHS and LHC, a designer and landscape painter, community members with contracting, business and managerial experience, research scientists, and a financial investment advisor and insurance agent.
- ii. *Foresight Land Services* The engineering firm, *Foresight*, has experience with dams, and septic systems and wells near water. (https://foresightland.com/environmental-services/)
- iii. *Structures North*, (https://structures-north.com) A team of structural engineers headed by preservation expert, John Wathne, has combed through the building to develop a plan to restore structural stability. Members of the firm are known as preservation specialists.
- iv. Walt Cudnohufsky Associates, Inc. (https://wcala.com) Supporting Clark Green + Bek in the creation of a landscaping plan to meet requirements for public use. Walt was founder of the Conway School of Landscape Design after being a professor in Landscape Architecture at UMass and taught the Kirley brothers who donated the mill to FONLS.

- v. Clark & Green + Bek Architectural Design (https://www.clarkandgreen.com) They have completed topographical surveying and 3D imaging of the building with a drone to create a CAD model of the mill and surrounding area as a reimagined cultural center and museum. They have completed over 50 historic restoration and rehabilitation projects including in the Western Massachusetts hill towns. Their team works closely with the firms mentioned above for civil and structural engineering and landscape design. The architects will employ preservation experts as required by the National Park Service and with whom they have previously worked.
- vi. NFF (https://nff.org/rfp-systems-replacement-plan-engineer) This firm has been contracted by the State of Massachusetts using funds from a MCCF grant awarded to FONLS for systems analysis. They will complete a report detailing near and long-term system replacement needs for the property. The State requires that this firm is used. Decisions about how to heat, cool and the waste systems need to be first completed by Clark & Green + Bek.
- vii *Chris Cole* (https://www.colecompanyinc.com) FONLS Project Manager. Chris has extensive experience in construction management, preservation and conservation and has worked closely on several projects with the companies listed above.
- viii Eugenie Sills (Consultant, Strategist, Project and Grants Management Eugenie is acting as grants manager for all FONLS projects. She has worked closely with Chris Cole on several projects. ix. Robert Spencer and Tom Reidy Attorneys of record.

2 Community Need and Outreach

The 2021 report by the Sustainable Economy Committee and Leverett's "Comprehensive Plan Phase 2 - one stop grant application" submitted in June 2022 list increasing recreational, and preserving educational, historic, natural, and cultural resources as goals of the town. The value to the community of the "N. Leverett Sawmill and environs rehabilitation project" is demonstrated by the June 2025 opening of the adjacent Heritage Park and Nature Trail by state representative Natalie Blais, and the art exhibition within the mill which ran concurrent with the park opening. The park opening featured a guided walk by the historian Pleun Bouricius through the built landscape and remains of the 1800s Graves ironworks. The mill art exhibition featured works from 40 artists inspired by the mill and its environs over the last 87 years starting with the 1938 etchings of Frank Waugh. More than 140 visitors attended the opening and exhibition showing community enthusiasm for the mill as a cultural center and demonstrating how the landscape and mill work together as a community asset. **The rehabilitated mill and its environs will have** ADA compliant composting toilets, ADA compliant and other parking and with the Heritage Park will serve as a new, and substantial, cultural/educational/recreational resource in town.

3 Community Support

Two public listening sessions on Sawmill Development were held in the Leverett Town Hall (March 2022) and a third at the mill (July 2022), after 2 earlier sessions at the Town Hall and the sawmill (July 2021). A FONLS presentation on Sawmill rehabilitation was made at a community potluck in the Quaker Friends' meeting house (April 2025), followed by two smaller gatherings at the Lynton and Baldwin/Black households (April & May 2025). The Heritage Park was officially opened on June 21, 2025, concurrent with a "Mill Art" show in the mill jointly attended by >140 community members who signed in with names and emails. The exhibition and park opening are reported in the Daily Hampshire Gazette (https://gazettenet.com/2025/06/13/heritage-park-and-nature-trail-opens-at-north-leverett-sawmill-as-building-restoration-plans-continue-61584126), and the 2-D portion of the mill art show is currently on display in the Leverett library for Sept and October 2025. Visitors to the mill art exhibition and the park were subsequently invited to sign a letter of support for the present mill structural stabilization proposal to the CPC on-line (Appendix

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3A), and those attending the library exhibition were invited to sign in situ (Appendix 3B). The Leverett Historical Commission is reviewing this proposal in consideration of a letter of support.

4 Maintenance

CPA funds will not be used for maintenance. A grant from the Massachusetts Cultural Facilities Fund (MCFF) will fund the development of a long-term maintenance and systems replacement plan for the rehabilitated sawmill. This will be developed by a systems engineer contracted through the MCFF. FONLS has also developed an operations plan for the mill and environs which includes sustained payment of insurance, services and maintenance fees once rehabilitation is complete.

5 Success Factors - Deliverables:

As diagrammed in Figure 1 we are raising funds from many sources to rehabilitate the N. Leverett sawmill and its environs into a Cultural Center/Museum and Park complex. It is fundamental to mill and environs rehabilitation that the foundation, framing, and floor supports of the mill building are structurally sound. Until that is achieved there is no point in doing other needed building and environs rehabilitation. Structural stabilization of the mill is the sole goal of this CPA funding request and must be completed before implementing other project components. Structural stabilization of the mill is fully deliverable with CPC and town endorsement of funding for the current proposal and would be certified by licensed structural engineers.

6 Project Permits & Approvals:

<u>Control of site:</u> The mill and a separate parcel (2.6 acres) adjacent to the 0.5 acres Sawmill parcel was donated to the FONLS by the Kirley family. The deed is attached (Fig 6).

<u>Deed restrictions</u>: Mill envelope has a historical restriction held by Leverett Historical Commission.

<u>Hazardous materials</u>: none known. The building is made of untreated wood, has not been painted and was used solely for cutting timber that had not been exposed to hazardous materials.

Environmental Concerns: A Notice of Intent will be submitted.

<u>Evidence of Historical Significance:</u> The mill is a recognized historical resource as discussed under "eligibility for CPA funding" (Section 1c) above. The mill envelope has a historical restriction held by the Leverett Historical Commission.

<u>Comply with US Secretary of the Interior Standards of Rehabilitation:</u> All work done on mill rehabilitation will comply with the Secretary of the Interior Standards of Rehabilitation, and this will be confirmed/enforced by NPS review.

Permitting and Approvals:

Name of Permit/Approval	Filled	Date Filled	Date
	Y/N		Obtained
NPS & MA State Historic Preservation	N	To be submitted Fall 2025 or	
Office Permits - Section 106 approved		Spring 2026	
NOI	N	To be submitted Spring 2026	
Building Permit	N	To be submitted Spring 2026	

C BUDGET, FUNDING & TIMELINE:

1. Project Budget: Hard Costs estimates: Developed by A.M. Fogarty & Associates based on Structures North's Progress Set Drawings (See Appendices 2&3). **Soft Costs Estimates**: Developed by Clark Green + Bek, Foresight Engineering, and Structures North, for completion of biddings documents, structural specifications compliant with historic preservation standards, overseeing the bidding process, and managing the construction process Architectural and engineering plans (see Section B1 Project Goal, and 1d5 Partners above).

Expense Item	Total \$	CPA \$	0ther \$
033000 – cast in place concrete			
S2.1 Sub Floor Frame Supports	25,488	25,488	0
New Column Footings	3,240	3,240	0
Concrete Equipment Pads	7,200	7,200	0
Sub-aqueous Pier Inspection & Repairs	18,000	18,000	0
042000 – unit masonry			
S1.1 Stone Foundation Wall Repair	222,093	222,093	0
051000 - Structural Metal Framing			
Repair & Reinforce Wrought Iron Beam	24,475	24,475	0
06100 - Rough Carpentry			
S1.2 Reinforce Existing LL Framing	40,876	40,876	0
Soft Costs Estimates			
Clark Green+Bek	25,000	25,000	0
Foresight Engineering	5,000	5,000	0
Structures North	20,000	20,000	0
TOTAL	391,372	391,372	0

2 Other Funding – for application to other aspects of the mill and environs rehabilitation

Source of Funding	Amount \$	Funding requested Y/N	Funding Secured Y/N
NPS – mill rehabilitation non- structural	683,500	Y	Y
MCFF Capital Grant – well, septic – CPA funding is a match for this	200,000	Y	Pending
MassReady Act Section 2C:2000-7086 – mill dam repair	448,560	Y	Under review

3 Total Project Funding

<u> </u>		
Fiscal Year	CPA Funds \$	Other Funds \$
2026	391,372 for mill structural	683,500 (awarded) for mill
2027	rehabilitation	non-structural rehabilitation
2028		and 200,000 MCFF Capital
2029	0	Funds (pending) for well,
		septic, ADA compliant
		restrooms

Timeline: Fall 2025/spring 2026 submit mill rehabilitation NOI and building permits; summer/fall 2026 start structural stabilization work, fall 2027- spring 2028 complete structural stabilization and implement NPS funded repairs and outside work

Fig 1

Flow chart of rehabilitation plans & funding

Open up the environ and history of the mill and adjacent historical ironwork remains to the public by creating the *Heritage Park & Nature Trails* CPA1

Engineering assessments and architectural and landscape designs:

- structural engineers
- architects
- landscape architect
- environmental service engineers
- systems replacement
- ⇒ Structures North^{NPS, MCCF1, CPA2}
- ⇒ Clark, Green + BekNPS, MCCF1, CPA2
- ⇒ Walt Cudpobutsky Inc.NPS, MCCF1, CPA2
- ⇒ Foresight Land Services NPS, MCCF1, CPA2
- ⇒ NFF MCCF2

KEY:

CPA1 -\$90,590

CPA2 -\$24,500

MCCF1 - \$35,000

MCCF2 - \$8000 & FONLS MATCHING

- \$8000

NPS - \$683,500

MCCF3 pending-~\$200,000

Initiators / Gates

Board of Health permit for septic & well

Archeological Assessment of surrounding land (proscribed by NPS)^{NPS}

Zoning board for Special Permit for parking & ingress/egress

Notice of Intent for implementing the plans NPS

NPS & SHPO approval 00 cost

Fogarty Inc. - Professional estimators
based on engineering reports &
architectural plans NPS, MCCF1, CPA2

Professional project manager - Chris Cole NPS

Final construction drawings with expectation of some future adjustments

needed This APPLICATION

Bids obtained no cost

Remediate threats to building integrity:

Windows & doors made off-site, floors, building envelope, sluice gate for flooding prevention NPS

Ground disturbing work:

Electrical service laid underground NPS

Septic & well & associated lines into & out of the mill MCCF3

Storm drainage & hillside spring NPS

Repair dam, dredge pond, fix flooding threat MASSREADY ACT SECTION 2C;2000-7086

Structural stabilization of the mill:

beams, joists, posts, piers, floor framing on both levels THIS APPLICATION

Installation of windows & doors NPS

2 ADA compliant entrances NPS, THIS APPLICATION

Landscaping & walkways NPS PARTIALLY FUNDED

Parking & roads UNFUNDED

Finish work inside:

Lower floor restroom walls THIS APPLICATION
Upper floor restroom MCCF3 + CAPITAL FUNDRAISING

Rest rooms' sanitary & safety finishings CAPITAL FUNDRAISING

Heat pumps CAPITAL FUNDRAISING

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Fig 2 – artists rendition of mill and landscape rehabilitation



Platforms at the E end of the mill will be excluded because the Leverett Historical Commission has ruled that it conflicts with the Historical Restriction held on the building envelope

Fig 3 Draft of mill landscaping plan (preliminary, walkway now adjusted)





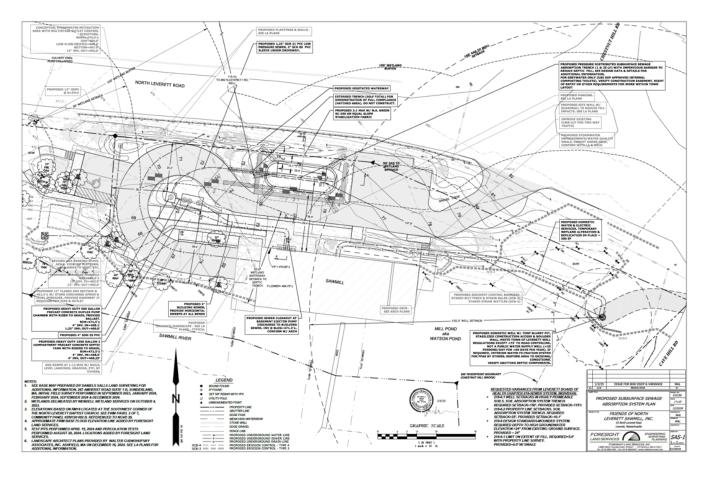
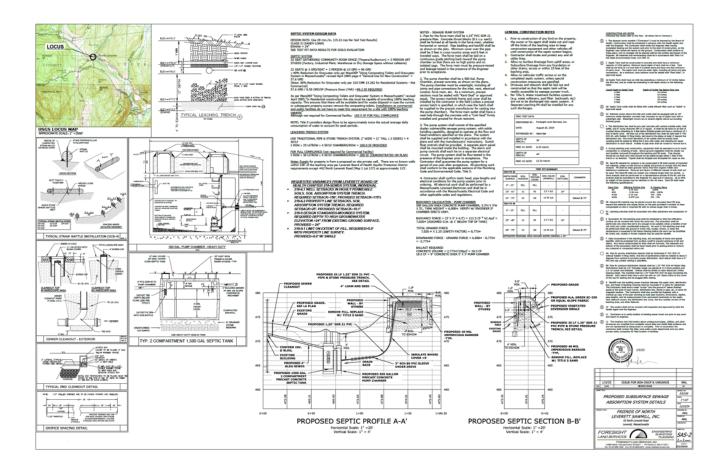


Fig 4B

Draft of Mill Septic Plan II



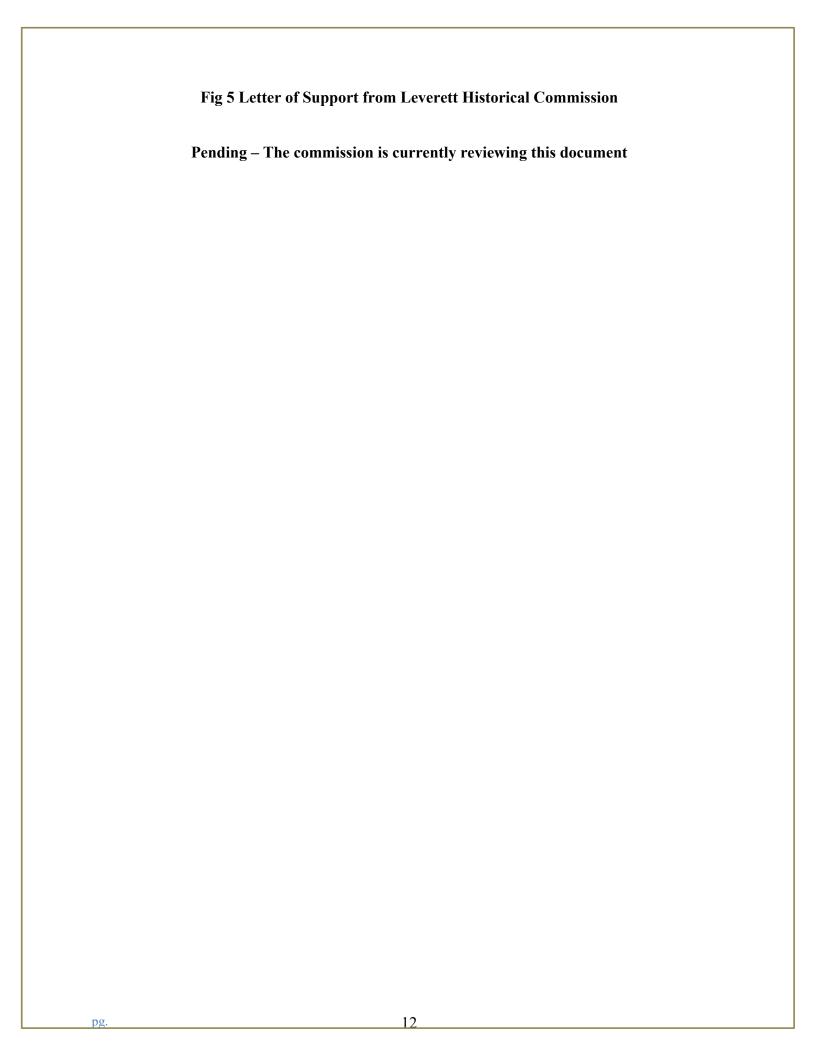


Fig 6 Deed to Mill Bk: 07999 Pg: 299

Franklin County Registry of Deeds Electronically Recorded Document

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Recording Information

 Document Number
 : 5390

 Document Type
 : DEED

 Recorded Date
 : May 16, 2022

 Recorded Time
 : 03:57:52 PM

Recorded Book and Page
Number of Pages(including cover sheet)
3
Receipt Number
Recording Fee (including excise)
: 3185177
Recording Fee (including excise)
: \$155.00

MASSACHUSETTS EXCISE TAX
Franklin District ROD #11 001
Date: 05/16/2022 03:57 PM
Ctri# Dock 00005390
Fee: \$.00 Cons: \$.00

Franklin County Registry of Deeds Scott A. Cote, Register Courthouse 43 Hope Street P.O. Box 1495 Greenfield, MA 01302-1495 413-772-0239 www.Masslandrecords.com

Bk: 07999 Pg: 301

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Exhibit "A

TRACT 1

Beginning at an iron pin located on the northerly bank of Saw Mill River and at the southwesterly corner of the tract to be conveyed; thence easterly 780 feet, more or less, along said Saw Mill River to an iron pin; thence N. 43 Gegrees E 33 feet to a iron pin; thence N. 28 degrees 30 W 50 feet to an iron pin located at the southerly side of North Leverett Road; thence westerly 652 feet, more or less, along said North Leverett Road to an iron pin; thence S 36 degrees 30 W 270 feet, more or less, to the place of beginning. Containing 2.68 acres, more or less, to

TRACT 3

A certain estate situated in the northerly part of said Leverett, Franklin County, Massachusetts, together with the saw mill thereon standing, all the machinery therein, the dam and all the water power rights and privileges appurtenant to said mill, bounded and described as follows:

BEGINNING at the northeast corner of said tract on the County Road leading from Mortague to New Salem; thence southerly on the road leading to the south part of said Leverett to Mill River, thence down said river to a cross set in a stone on the bank wall on said river; thence thirty three (33) feet to an iron pipe set in the ground on the east side of a large maple tree and land nor formerly of Maria A. Graves; thence on land now or formerly of said Maria A. Graves fifty (50) feet to an iron pipe set in the ground on the County Road; thence on said County Road to the place of beginning, and containing one-half an acre more or less.

EXCEPTING from said Tract 3 the land taken by the Town of Leverett for approaches to the new bridge and SUBJECT to any and all easements and rights of way held by any telephone, telegraph, or power company.

ATTEST: Scott A. Cote Register

Appendix 1

Report from Structures North



60 Washington St, Suite 401
Salem, Massachusetts 01970-3517
P.O. Box 01971-8560
T 978.745.6817 | F 978.745.6067
www.structures-north.com

October 17, 2024

Steve McAlister, Senior Architect Clark Green + Bek 309 Main St. Great Barrington, MA 01230 Dear Steve:

On July 19, 2024, we visited the North Leverett Sawmill to document the existing structure and its conditions. The following is a description of the sawmill, our findings and recommendations for repair.

STRUCTURAL DESCRIPTION

The property at 63 North Leverett Road was built in the 1770s and operated as a fully functioning sawmill for more than 250 years. The timber-framed structure is 2 stories tall with a partial loft level. The first floor is split into two sections; part of the space is a finished room while the rest of the level is open-air and houses the water wheel that once provided power to the sawmill. We found that the sizing and spacing of the first-floor joists vary throughout the entire structure, showing that there were several generations of repairs and reinforcements made. There are even some instances of metal support members near the waterwheel and modern framing that were likely a part of the more recent reinforcements to the structure.

The main production floor is level with grade along the north elevation, which runs parallel with North Leverett Road. Upon entering the structure at this level, you are met with a wide-open space, with exposed roof rafters, wood plank floors, exposed stud walls and old equipment from when the mill used to operate. The roof rafters are supported by east- west spanning purlins that are braced and posted down to north-south spanning beams, which post down to the foundation. Interestingly, the east portion of the north wall at this level appears to have been framed in such a way, using trussed timbers, that a wide swath of the wall could be opened up to allow for wood deliveries then closed up again when done.

The horizontal, north-south spanning timber beams are supported at their midspan and appear to be spliced at certain points along their span. The entire south face of the building is lined with windows, meanwhile, the entire north elevation has been boarded up to discourage trespassing and vandalism.

There is a level below the production floor that is on the north side nested into grade with a stone retaining wall and above the descending grade at the south, east and west. The framing for this level consists of timber girts and posts supporting north-south running sawn lumber joists, divided into two bays by the center girt and supporting posts. The north bay is an unfinished basement with an earth floor, whereas the south bay is a semi- finished space with a wood-framed floor. The south side of the structure is supported by a stone foundation that sits in the riverbed as a retaining wall.

At the east end of this level are where all mechanical power was generated with the hydraulic drop of water through a spillway from atop the dam. There is a deep channel here that housed the waterwheel and acted as an outlet for the water that drove it, existing through the south foundation into the Spaulding Brook, beyond.

This exit way is spanned by a built-up metal beam (wrought iron or early steel), the polygonal shape of which suggests that it might be a re-purposed salvaged member.

INTERIOR NOTED CONDITIONS AND RECOMMENDATIONS:

Lower Level:

The framing of the lower level, below the finished room, was accessible from the south side of the building. There we were able to see an exposed built-up metal beam that appeared to act as the sill at this level, supported at each end by the stone foundation. The framing appears to be partly newer pressure-treated lumber with modern face mount hangers supporting the ends however, some existing framing was still present closer to the southwest corner of the building. Most conditions we found at this level pertained to the original floor framing and metal beam.

• The main wood floor girt that spans north-south is notched at its end to bypass the rough stone edges of the foundation wall. With that said, the east-west spanning joists are only toe-nailed into the girt at their ends. One of the joists is rotted and no longer reaches the girt, leaving part of the floor unsupported (See Photo 1 of Appendix 1). The cut on the beam and poor joist end connections result in a vulnerable floor in need of reinforcement, especially if it will soon be opened to the public. The joist ends should be re-supported with face mounting hangers, while the rotted joist is then sistered and extended to reach to the existing girt.

The metal beam support that runs along part of the south elevation is badly deteriorated at its end where it sits on a concrete pier (Photo 2). It also slopes down at the east end, not fully supporting the floor sheathing. At the beam's other end, there is a gap between the beam's bottom face and the top of the stone foundation wall. This means that the load the beam is carrying is not being safely nor properly transferred to the foundation. Finally, the dry laid stone pier that the metal beam sits on is partially undermined, missing a group of stones at its base. Though further investigation and analysis is necessary to understand the extent of load that the beam is carrying, the beam will either need to be replaced or cleaned, with possibly new end supports welded or bolted on, and then coated to withstand the elements. Re-support of the floor at the sloped location is also recommended. The dry laid pier will also need to be resupported at its base and infilled with matching and compatible stones.

Lower Level/ Production Floor Framing:

The first floor is accessible from the east and west side entrances. The south elevation is raised just a few feet above the waterway and is partly an open-air space. The finished room is at the southwest corner of the mill. The room has exposed wall framing, second floor beams, and floor sheathing consisting of planks and plywood. Between the ceiling beams is plaster concealing the second-floor structure above. The second-floor framing exposed here also varies in size and spacing similar to the rest of the floor framing. The remainder of the first floor is open air and was mostly visible during our initial investigation. The dry-laid stone foundation was also visible along the north elevation for our survey.

In the finished room, one of the windows was missing a jack stud (Photo 3), meaning that the adjacent window's stud is enduring more load than it's likely designed for. *To avoid overstressing the other members, the stud should be replaced, keeping up with the redundancy intended for in the wall framing.*

- We found that some of the beams and joists at this level are notched at a right angle on their tension face at their end connections as this was a very common joinery technique (Photo 4). However, most often, these notched ends start to split at the right angle due to release of stress built up at the notch. This condition reduces the shear capacity of the member meaning that the member is in an overstressed state. We saw on a few occasions where the members have already begun to split.
- There were several instances where the floor joists were not in contact with the decking, and do not appear to be supporting the floor at all. It is possible that these are older members that have shifted downwards, requiring reinforcement which may explain why other joists have been installed sporadically. This lack of redundancy in the floor is similar to the missing wall stud discussed above. The surrounding joists are likely taking on more load than originally intended due to the lack of consistency in the floor framing. As a result, some members have become overstressed.
- Several beams and joists that were framed to have their ends supported by the north end foundation wall are either rotted at their ends or have fallen short of the foundation. In addition to the poor, unreliable ad hoc supplemental framing, the rotted ends indicate a more concerning issue. Water is getting in at the sill-foundation interface potentially causing issues with other joist ends and the sill itself.

These conditions in the floor framing will require further analysis for detailed repairs. However, we expect:

- The rotted/short members will need to be replaced, or sistered and treated with boric acid to limit further rot.
- Notched and split members will need additional end support either with ledgers or metal hangers.
- Some areas may need to be removed and reframed depending on the severity of damage and effectiveness of existing supports.
- Water management will need to take place at the sill-foundation interface to limit water entry into the first-floor level. Wood members that sit on the foundation will need to be wrapped in a protective rubber membrane and treated with boric acid, so rot damage does not continue.

Second Floor Level/Roof Framing

At the second-floor level, the roof framing is entirely exposed, as well as the walls. The roof is A-framed with rafters running north-south. The roof-top of wall connection is braced with multiple horizontal beams that also run north-south. Though we did not see any immediate concerns with the existing roof framing, we did identify the following:

- Some of the horizontal, north-south spanning beams are spliced along their span and meagerly supported (Photo 5). This condition should be reinforced, potentially with a direct support below or steel reinforcement plate.
- The framing of the loft level is also insufficient if the space is to be used, especially for storage or equipment. The joist ends are either toe nailed or deeply notched over scantly connected ledgers, in addition to the joist spans appearing long (Photo 6). The end connections of the joists will need to be reinforced with metal face mount hangers before access is permitted, and sistering may be needed.
- One of the windows is missing along the south elevation to allow for the pulley system to extend outwards over the waterway (Photo 7). This opening can permit water to enter and weaken the internal building systems. The window opening should be boarded up or shutters added to allow for protection from water ingress during storms.

EXTERIOR CONDITIONS

The exterior of the building appears to be in mostly sound condition aside from some weathering/potential rot along the roof's rake board and some fallen bricks missing from the chimney (Photo 8). The rake should be inspected further for any worn areas. The top of the chimney should be dismantled, rebuilt and protected with a cap placed over the top to limit water entry.

Please note that all of these recommendations are for the maintenance and upkeep of the building. If the structure is to be adapted for another use, further analysis and reinforcement will be necessary to comply with building codes.

Report Limitations

This report is a summary of readily visible observations conducted during a single visit to the property. No finishes were removed to expose hidden structure, and no calculations have been performed to determine if the overall building complies with past or present building codes. This report is strictly limited to structural considerations noted. Other building systems were not reviewed, and they are beyond the scope of this report.

We hope that the above information is helpful in determining your next steps. If you require any further assistance, please do not hesitate to contact this office.

Respectfully.

Jillian Borghardt, E.I.T.

Macy Paquin

John M. Wathne, PE

Preservation Designer

Preservation Designer

President



Photo 1
Poorly supported and rotted joist ends



Photo 2
Rusting beam at south elevation with poor continuous floor support

18



Photo 3
Missing window stud



Photo 4 Notched floor joist

19



Photo 5
Spliced timber beam



Photo 6
Scant framing at loft level

20



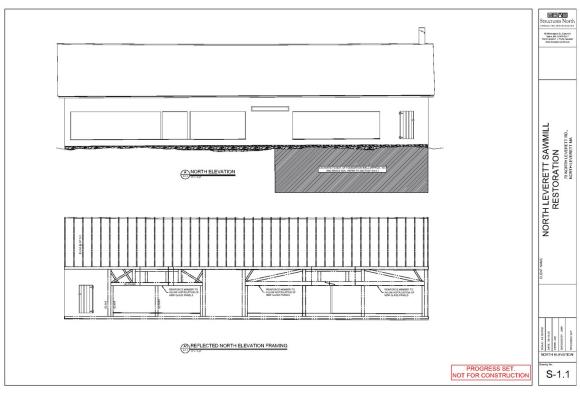
Photo 7
Window opening at south elevation



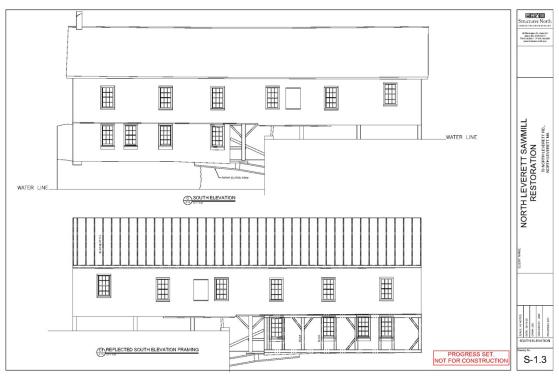
Photo 8 North elevation

Appendix 2

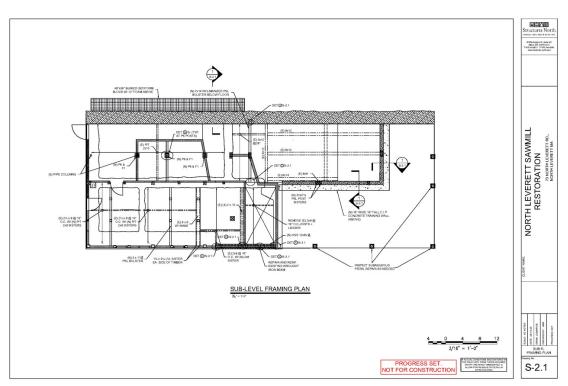
Progress Set Plans from Structures North for Structural Stabilization of Mill

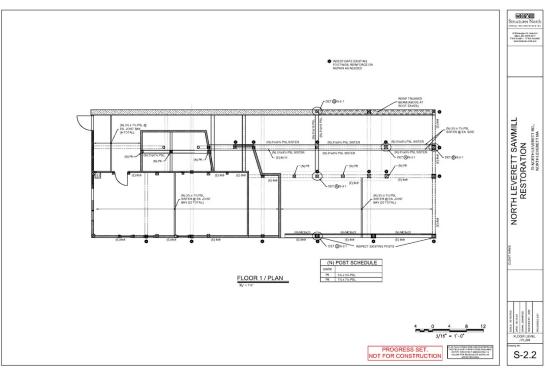


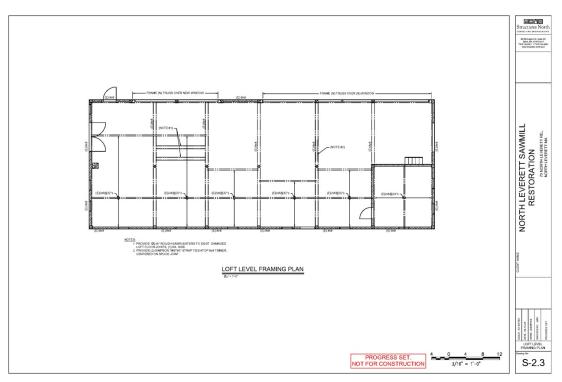


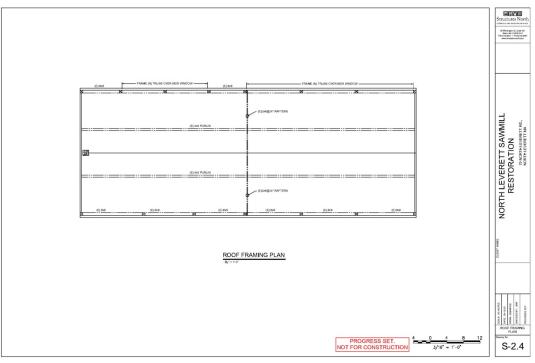


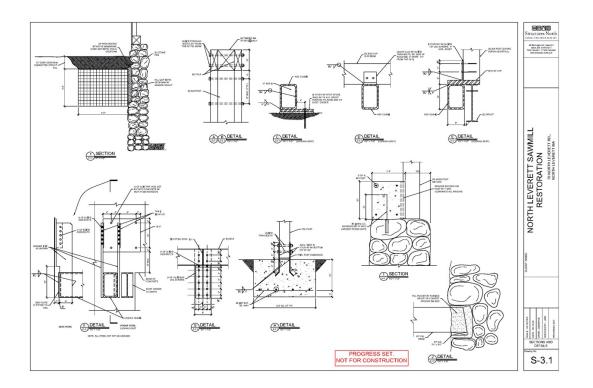












Appendix 3 - Cost estimates from AM Fogarty & Associates

A.M. Fogarty

175 Derby St., Suite 5, Hingham, MA 02043 TEL: (781) 749-7272 FAX: (781) 740-2652 ptim@amfogarty.com

North Leverett Sawmill

Scope of Work

Structural Repairs Foundations and First Floor Framing

Scope of Work 033000 - Cast in Place Concrete	Cost
S2.1 Sub Floor Frame Supports	\$ 25,488
New Column Footings	\$ 3,240
Concrete Equipment Pads	\$ 7,200
Subaqueous Pier Inspection & Repairs	\$ 18,000
042000 - Unit Masonry S1.1 Stone Foundation Wall Repair	<u>\$ 222,093</u>
051000 - Structural Metal Framing Repair & Reinforce Wrought Iron Beam	\$ 24,475
06100 - Rough Carpentry	
S1.2 Reinforce Existing LL Framing	\$ 40,876
Total Construction Cost	<u>\$ 341,372</u>

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Appendix 4A Names and signatures of supporters from Leverett signed on Jotform - letter appended

21st September 2025 Dear Friends and Neighbors,

The North Leverett Sawmill is a symbol of Leverett's origin appearing on both the Town Seal and Town Flag. Preservation and adaptive reuse with routine maintenance will make the sawmill a sustainable part of Leverett's future and provide visitors a physical sense of history. That is the goal of *Friends of the North Leverett Sawmill* (FONLS), a 501c3 non-profit to which ownership of the mill and 2.5 acres of adjacent riverside land was transferred in 2022 from the Kirley family. FONLS' goal is to rehabilitate the sawmill and immediate surround so that along with the early industrial sites in the adjacent Heritage Park it will become a *Heritage Center and Park Complex*.

A survey by *Structures North*, *Inc*, which specializes in structural engineering and historic preservation (https://structures-north.com), identified deficiencies in the North Leverett sawmill support structures, including masonry, piers, pillars, metal and wood joists, joist hangers and framing that support the lower and upper story floors. These need to be reinforced and in some cases new supports added to stabilize the mill before addressing other rehabilitation work. FONLS will submit a proposal to the Leverett Community Preservation Commission (CPC) on October 1st 2025, requesting \$391,372 (estimated by Fogarty & Associates inc., https://amfogarty.com) CPA funds for the structural work. This will complement the \$683,500 Semiquincentennial Program grant we received from the National Park Service for other aspects of mill rehabilitation. If you are a resident of Leverett and would like to show your support for the project we would greatly appreciate it if you would click and sign the link below. Your signature will be used only to show potential community support for the project to the Leverett CPC.

Yours truly, Samuel Black FONLS Board of Directors

Support for FONLS application to CPC 2025 https://form.jotform.com/252634662944161

IP \$	Submission ID \$	Submission Date	We, the undersigned, support FONLS request for CPA funds for structural and lower floor buildout work at the N. Leverett sawmill.	First \$	Last Name	E-mail \$	Signature
162.245.143.132	6342806462316740070	2025-09-21 12:17:26	-	Samuel	Black	sblack@umass.edu	6342806462316740070_signature_6.png
162.245.143.132	6342813922318401573	2025-09-21 12:29:52	-	Cynthia	Baldwin	cbaldwin@umass.edu	6342813922318401573 signature 6.png
128.119.53.98	6342865498934359417	2025-09-21 13:55:49	-	Jim	Staros	jvs@umass.edu	6342865498934359417_signature_6.png
162.245.141.175	6342866535717151761	2025-09-21 13:57:34	-	SHARON ROSE	DUNN	sharonrosedunn@gmail.com	€ 6342866535717151761_signature_6.png
162.245.143.53	6342870263533563458	2025-09-21 14:03:47	-	Janice	Telfer	telfer@umass.edu	6342870263533563458_signature_6.png
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2a09:bac3:8816:428::6a:7d	6342881267683518853	2025-09-21 14:22:07	-	Helene	Cousin	hcousin@vasci.umass.edu	6342881267683518853_signature_6.png
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2607:fb91:dea:3af7:2c83:a4c4:d78a:58da	6342900568589536625	2025-09-21 14:54:17	I think the sawmill project will be so awesome for our community	Elizabeth	Kiebel	kiebs05@gmail.com	6342900568589536625_signature_6.png
162.245.140.129	6342914739212542137	2025-09-21 15:17:54	Louise Minks	Louise	Minks	Louise@LouiseMinks.com	6342914739212542137_signature_6.png
162.245.141.58	6342949258514434655	2025-09-21 16:15:26	-	Tim	Shores	timothylshores@gmail.com	6342949258514434655 signature 6.png
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2a04:4e41:60f:7159::c5f3:2159	6342968429511958325	2025-09-21 16:47:22	-	Kathy	LeMay	kathleenlemay2@gmail.com	6342968429511958325 signature 6.png
2a09:bac2:a1d3:428::6a:cf	6342976206821684017	2025-09-21 17:00:20	-	Lori Lynn	Hoffer	lorilynn@waterlilydesign.com	6342976206821684017_signature_6.png
162.245.143.160	6342977600619266788	2025-09-21 17:02:40	-	Carolyn	Anderson	ca@umass.edu	6342977600619266788 signature 6.png
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162.245.142.222	6343086302224489390	2025-09-21 20:03:51	-	Nancy	Stroud	nanc1031@aol.com	6343086302224489390_signature_6.png

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162.245.143.243	6343597783429274724	2025-09-22 10:16:18	Hugh Roberts	Hugh	Roberts	hugh.dbob.roberts@gmail.com	€ 6343597783429274724_signature_6.png
162.245.141.67	6343640487619417589	2025-09-22 11:27:29	-	Georgiana	Schmid	schmid04@gmail.com	€ 6343640487619417589_signature_6.png
162.245.140.31	6344535811303012381	2025-09-23 12:19:41	-	Susan	Lynton	susanlynton@gmail.com	€ 6344535811303012381_signature_6.png
162.245.140.74	6345388354703733497	2025-09-24 12:00:35	-	Catherine	Wescott	cathyw@starkweatherfamily.com	6345388354703733497_signature_6.png
162.245.140.128	6345652998217008946	2025-09-24 19:21:39	Kathleen Arcaro	Kathleen	Arcaro	karcaro@umass.edu	6345652998217008946_signature_6.png
162.245.141.56	6346370806517319957	2025-09-25 15:18:01	-	Edith	Field	edithfield1@gmail.com	€ 6346370806517319957_signature_6.png
162.245.141.56	6346371696517066075	2025-09-25 15:19:30	-	Linda	Jablonski	lindajab7@gmail.com	€ 6346371696517066075_signature_6.png
162.245.141.56	6346375276511785934	2025-09-25 15:25:27	-	Robert	Jablonski	upsjabber@gmail.com	€ 6346375276511785934_signature_6.png
162.245.142.180	6344655330815231209	2025-09-23 15:38:53	-	Phillip	Crafts	pacrafts47@gmail.com	-
162.245.141.190	6343559620919476022	2025-09-22 09:12:42	Joan Godsey	Joan	Godsey	joangodsey@hotmail.com	

Appendix 4B

Names and signatures of supporters from Leverett signed at Leverett Library during Mill Art Display Sept 3 – Sept 30 2025

	63 NORTH LEVERETT R P.O.Box 57 Lever	OAD LOWDEN MA
	We, the undersigned, support FONLS request for stabilize the N. Leverett sawmill foundations, flo building rehabilitation to gain a certificate of occ Name & Signature Annabere Birchoff Charles Clifton Ly Par Hugh Roserts Debora Dones Wighten Roberts Hautha Field 7 Brand Field 7 Brand Field 7 Brand Field 7 Robert Passell Ierry Johnson Kari Passell Vancy Paulin Louise Minks Robert Adreses Oncld Robert Brien Boudrean	Address in Leverett 6 Still Corner Rd 44 Carc Hill Rd 2 Still Corner Rd 54 Care Hill Rd 54 Care Hill Rd. 227. Leverett Rd. 78 N. Leverett Rd. 77 TEAWADDLE HILL RD. 77 JACKSON HILL Rd MILLORG
A STATE OF THE STA		



We, the undersigned, support FONLS request for CPA funds for structural work that will stabilize the N. Leverett sawmill foundations, floor supports and lower floor build-out enabling building rehabilitation to gain a certificate of occupancy and public access.

Name & Signature

Heorgiana Schmid 483 Long Plain Rd, Leverel Peggy Brownell 114 Dudley Ville Rd, Lev.